

Bissell (D. P.)

ADDRESS

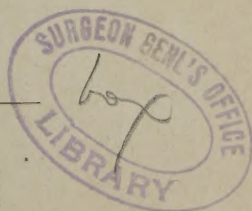
BEFORE THE

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

By DANIEL P. BISSELL, M. D., of Utica, President.

DELIVERED FEBRUARY 3, 1864.

[Reprint from the Transactions of the Medical Society of the State of New York, 1864.]



ALBANY :
VAN BENTHUYSEN'S STEAM PRINTING HOUSE.
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ADDRESS

Presented by
Dr. J. H. Arncliffe
BEFORE THE
with kind regards of the author

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Gentlemen of the Society:

In the address which it becomes my duty to read before the Society this evening, I shall present some thoughts and facts on MEDICAL PROGRESS. In attempting to do this, it will be necessary for me to confine myself to a small part only of that vast field which the mention of my subject opens up to view. For a full and complete examination of it I have neither the time nor the ability. I am aware too that much of what I shall say will be tame and common place to you gentlemen of the Society; but to those not familiar with medical science and literature, who have honored us by their presence, and perhaps to others who may read the record of our proceedings, it may not be altogether void of interest or information.

Let me confess here that I am conscious of a certain pride of profession, when I reflect that among such a body of men as are collected before me, the word progress does not awaken in a single mind a sense of suspicion or of disapprobation. The dead past has many lessons for us, but it imposes no law. Its precedents do not constrain our reason, nor do its statutes limit our action. The records of medical knowledge are still open, and the achievements of the "divine art" are to-day more than ever manifest. We do not merely yield to progress and accept it on compulsion, we cultivate it, we welcome it from every source, we believe in it as a necessity, and as the highest utility.

Upon this point I know we are grossly misapprehended by the unthinking portion of the public. They persist in imagining us to be a sectarian body, with a doctrinal system, and tests of membership. They suppose us to maintain a *regular practice*, to be jealous of all innovations, and that we wage unceasing war upon all who would bestow benefits on mankind in a new and better way. But we must never tire of impressing it upon the

public mind that legitimate medicine has not and cannot have any exclusive dogmas, and that it does not confine itself to any exclusive agents or class of agents in the treatment of diseases. On the contrary, we declare those, and those only, unscientific and open to the suspicion of quackery, who found their practice on doctrinal formulas, or who limit it to certain agents or methods of treatment. Such a test commends itself at once to a sound common sense, and a right knowledge of the *unity of nature* under all her various forms.

We know that the laws of disease in man are only a part of those laws by which he exists as an organized being; that the laws of his organization are but a part of those which belong to all organized matter; and that these still cannot be separated from those chemical and mechanical laws which pervade all nature, and the systems of worlds.

These noble conceptions of science, which form the basis of our medical knowledge and practice, are indeed among the best results of progress; and the knowledge that the laws of disease are connected with all other natural laws, if it has reduced in some respects our hopes in regard to the cure of *pathological states*, it has also improved our etiology and diagnosis of disease, and is guiding us to a more perfect system of therapeutics. Our medical philosophy, so to say, is not that proud and boasting thing which blind experience would make it. It is neither experience alone, nor abstract reason; but it is experience tested by rules and analogies, or universal law. We cannot say that "like cures like," for that *like* never exists in nature; neither can experience alone make a law unto itself, nor afford safe data for rules of practice.

I am well aware that a rigorous following out or application of scientific ideas has led into a medical skepticism some of the best minds in our profession. But the great majority of our members have been able to pause within the limits which rational experience and common sense seem to prescribe.

Under the light of improved medical science, HEROISM in the practice of medicine has given place to a more rational mode of treatment, and nature and art are now united and combined in conducting diseases to favorable terminations. The purely expectant treatment should only be adopted when the practitioner fails to comprehend the true pathological state or lesions which he is called on to correct. It is, when life is at stake, better to

do nothing than to do wrong. Nature always attempts to preserve life, and if man had not transgressed the laws of his physical being, the *vital force* alone would often be his best physician. But when he transgressed the laws of his moral nature his soul was sick, and blood was shed to heal it. So too, the violation of the laws of his physical organization brought disease upon him, which it sometimes requires *blood* to remove. The amount of blood to be taken, or the remedies used, and the manner of taking it away must always be left to the enlightened judgment of the practitioner.

The law of the human mind, which compels a sick person to believe in remedies to cure him, is as universal as any purely natural law, and we are forced to believe that it has some legitimate end, from the very fact of its existence. How pathological processes can be changed by the agency of medicines we at present but imperfectly understand; but that the difficulty of this problem has little to do with our practical duties, may be boldly maintained.

It is, however, when we turn from the general principles upon which medicine is based, to any one of the numerous special sciences cultivated with reference to it, that the sure marks of progress are manifest.

Pathology, a knowledge of which in the present day is essential to the title of doctor, and all important to the practitioner of medicine, is of comparatively recent date. In the history of medicine we go back to Hippocrates, who lived more than four hundred years before the Christian era, as its distinguished founder. Previous to his day medical science cannot be said to have had more than a shadowy existence. He confined himself to the study of the various phenomena of disease, their succession and terminations, and seems to have fully appreciated the superior value of facts over opinions, yet he had but little idea of the structure of the human body, and less knowledge of its functions. As illustrating his knowledge of anatomy and physiology, he considered the brain a sort of gland, which exuded a viscid fluid. Hippocrates, however, is not the only investigator who has mistaken the structure and functions of this organ. His successor, Polybius, was no more learned, neither were Syllennesis or Diogenes. Aristotle indulged in a wider range of speculation, but his ideas of anatomy, physiology and medicine were rude, vague, erroneous and fanciful. ~~Dudes~~ and Praxagoras but

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echoed the ignorance of those who preceded them; the latter, however, felicitated himself on the discovery that the arteries were air tubes.

It is asserted that Erasistratus and Herphilus, in the school of Alexandria, 320 years before Christ, actually examined human bodies. However the works of Celsus and Morinus, in the first century, do not show material progress. Galen, of Pergamus, in the second century, was perhaps the first of the ancient authors who possessed any proximately accurate anatomical knowledge or ideas of physiology. His works enumerate the names of the brain and sutures of the head nearly as at the present day. He also divided the vertebral column into cervical, dorsal and lumbar, discovered some of the muscles and their uses, and set forth that arteries contained blood instead of air in the living animal. He further asserted the brain to be the source of the nerves of sensation, and the spinal cord of those of motion, and traced the distribution of most of both classes. He described the brain and its investments, the lungs, pleura, heart, and pericardium, and abdominal organs with tolerable accuracy. He was the first to introduce vivisection with the view of determining the function of organs, and to take advantage of accidents and diseases in men to obtain the same end. In two instances he was enabled to observe the motion of the heart, though he did not reach the idea of the circulation of the fluid in it. He, however, gave medical science a foundation which after-ages of ignorance did not entirely destroy. Soraneus, in the same century, would seem to have examined human bodies, as he described with considerable accuracy the female organs of generation.

From this period to the 13th century we find medicine enveloped in ignorance, superstition and mystery, and the office of the physician connected with that of priest.

The university of Bologna, established in the 12th, in the 13th century had so far advanced as to divide its professors into physicians, surgeons, physicians for wounds, barber surgeons and oculists; and Mondino, in this institution in 1315, dissected two bodies of females, and in the following year a third. He divided the body into three cavities, the upper or head containing the animal members, the lower the natural, and the middle or thoracic the spirital. Mondino here made one step in advance, he believed the blood flowed from the heart to the lungs.

Montagna, who died in 1460, made 40 dissections, and Mathew-

de-Gradibus, in 1480, dissected and represented truly the ovaries. Benevieni, of Florence, still later, and Versalius in the 16th century, following Montagani, gave continued interest and great impulse to anatomical study, and began to foreshadow pathological anatomy. Benevieni is said to have made 117 dissections, and to have sought to illustrate medical theories by the results of these post mortems. In Versalius we have presented the first comprehensive and systematic work on anatomy. Through centuries the superstition of the times prevented the examination of human bodies; comparative anatomy gave but uncertain ideas, and the knowledge of diseased conditions was entirely out of the question. g/n/a/

With the revival of literature, science and art, the study of medicine revived, and step by step we can note its progress. In 1619 Harvey announced the grand discovery of the circulation of the blood, and laid the foundation for deeper physiological and anatomical research. Bartholin, Willis, Malpighi, Leeuwenback, Ruysch, Wm. Hunter, distinguished names, now appeared upon the stage, and we have not only discoveries but the commencement of the study of structures and organization. Malpighi, in this period of medical progress, made the first investigation into the skin and secretory glands. Embarrassed by the minute examinations required in the study of structures, Leeuwenhock recommended the use of the microscope. Ruysch, the most eminent man of his time directed attention to morbid as well as normal anatomy in his numerous dissections, and introduced plates, thus fixing and continually recalling morbid conditions, and leaving behind him the record of his observations and investigations in a form impossible for words to impress. hrc/

In 1679 Bonet, of Geneva, published his *Sepulchretum*, which was a general resumé of all previous medical knowledge, but in which he made few observations or generalizations. Up to this period medical writers produced only curious and isolated facts in diseases, and all opinions were tinctured with the gross superstition of their times. But a new era is approaching in which we have Valsalva and his illustrious pupils, Santorini and Morgagni. c/

Morgagni, who in 1682 was a doctor of medicine at the age of nineteen years, published his first work on anatomy in 1706, which at once gave him a rank with the first teachers and learned doctors of his day. He was the first to establish pathological

anatomy on the sure basis of scientific facts, and may be considered the father of pathological science. His long life was spent in the most extended and patient investigations, while he also continued in the active practice of his profession. He made no less than 600 dissections, and while thus extending and perfecting anatomical knowledge, he directed his efforts to the verification or refutation of the existing theories of medicine, which up to his day rested on the superficial and uncertain foundation of symptomatology. He brought the symptoms observed during life, which he carefully recorded, to this test. His great works on the origin, cause and nature of diseases, were not published until near the close of his life, and he embraced in them his vast erudition, the result of his observations from an extended practical experience, and the most careful investigations; all under the guidance of a ripe and impartial judgment.

a/ From this time physiology and pathology began to assume a place in the schools and in the profession proportional to their importance. About the same time Boerhave founded the first school at Leyden, where Haller received his instruction. The latter, afterwards, at Gottingen, poured the inspiration of his transcendent genius into hitherto dark fields of research, and gave signal and enduring impetus to the study of the constitution of the tissues, and of the functions of the various parts and organs of the human body. These investigations, commended by Malpighi, Leeuwenback and Ruysch, received fresh interest when touched by the living power of this illustrious teacher and observer. He dissected, in the seventeen years he was professor at Gottingen, 400 bodies, and published many beautiful anatomical and physiological plates, as the result of these studies.

duel/ In 1788 Desault opened in the Hotel Dieu, the first surgical clinique, and carried pathology into this department of medical science. In this now widening field we have other names cotemporary and in rapid succession, which truly adorn and illuminate the history of their times, and shed their light down to the present. Bichat, who gave to physiology still higher rank; Carvisart, who introduced morbid anatomy, with dissections, into his lectures, and by his careful physical examinations of disease at the bed-side, gave renewed emphasis and importance to clinical study; Dupetron, his illustrious pupil, who, inspired by such a master in the doctrine of pathology, at length demonstrated that the physiological laws of nutrition applied to diseases, with the
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modifications which special conditions imply, and opened up the subject of abnormal products; Wm. Hunter, who in 1754 began his great work on "the anatomy of the gravid uterus," which was completed in 1775, and at once placed him in the front rank of the anatomists of his time, and who also established his ANATOMICAL MUSEUM and school in London, which gave new impulse to the study of anatomy; Broussais, author of the doctrine of inflammation; Laennec, with his vital investigations into phthisis and the introduction of auscultation and percussion; and then and since, a host of great men in our profession, too numerous to mention in such an address as this.

In 1846 we have the first work of that most distinguished and accomplished pathologist, Kokitansky, who in learning and labor must always remain the wonder and admiration of men. A man who has based his views and discoveries upon the most thorough examination of symptoms during life, the widest professional learning, verified and fortified by the examination of a larger number of human bodies than any other known pathologist. We ought also to mention Bennett, of Edinburgh, Paget, of London, Todd and Bowman, Virchow, of Germany, and Clark and Dalton of our own country; and that brilliant star, now rising in the medical world, Brown-Sequard. R

An address, embracing even an outline of the developments of medical science, with the theories advanced and the discussions thereon, of the past 150 years, would not only be beyond the ability of the speaker, but would stretch into volumes.

From the time of Ruysch to the present, medical science has been largely indebted to the engraver, and iconographic pathological anatomy has grown more and more important. We now no more think of trusting to the memory or verbal description of morbid appearances than we would think of doing away with the record of symptoms and treatment, and resorting to oral teaching alone to transmit knowledge. All must be recorded. A work on anatomy, physiology or pathology, to be complete, must not only *describe* but it must *represent*. This department of medical science has its embryotic existence in the dark ages, in the rude representations of disease, suspended in the temples of Esculapius, that the gods might see and heal. Its development and realization are due to the efforts of Ruysch and others of his day, and innumerable works since, and its perfection is seen in the very recent and incomparable work of Liebert. g

But may we not venture to say that the engraver may yet disappear in this department, under advancing art, and that the sun, with its unerring fidelity to nature, true beyond the power of the eye or genius of man, will be called upon to create another era of advance, and that we may have photographic anatomy; when we shall have the actual description or representation of the disease, taken in a moment, representing every point, in the progress of disease or investigation.

As the laws of the vital functions in health come before those in disease, so progress in physiology was necessary before any advance in pathology could be made; and what mind is there capable of grasping, without some effort, the advancement made in the physiology of the nervous system alone, within a comparatively short period of time. From Haller to Draper, and Paine and Dalton of our own day and country, it would need volumes to record the patient and oft repeated experiments, the careful observations and the acute analogies which have occupied and filled this important space in medical progress.

Upon the discovery by Charles Bell of the double functions of the spinal nerves, followed by that of Marshall Hall, showing the reflex and independent powers of the spinal cord, Then the functions of the sensory ganglia, at the base of the brain, were brought to light by Carpenter, and the unconscious action of the cerebrum was demonstrated by Laycock; and now we have further explanations of the reflex nervous phenomena by Brown-Séquard, and the functions of the cerebellum illustrated by Dalton. Close upon these discoveries in physiology, and attained by their light, has followed an improved knowledge of pathological states or morbid changes. Zeal, such as led Kokitansky, the great continental pathologist, to the examination of 30,000 human bodies has been evinced by numerous others in the same department of medical science, like Todd in England, Liebert in France, and our own Clark, to the great advancement of our knowledge of disease. R

By the powerful aid of the microscope and chemical tests, the very beginnings of morbid action have been traced to the primary cells and molecules of organs. In the nutrition, growth, and change of these cells, we have a foundation for an etiology which need no longer rest on the secondary and blended symptoms of disease, forcing us to disguise our real ignorance of morbid action under the cloak of indefinite general terms. G

From these advances in physiology, pathology and etiology, we come to their practical application through diagnosis and therapeutics. Admitting that we have a cell pathology, though as yet far from complete, to what extent has this influenced and improved our treatment of diseases? I fear we shall have to confess, on considering this question, that our general practice has not kept pace with the advance of that knowledge on which therapeutics is based. This is owing chiefly to the fact that the bounds of medical science have become so extended as to forbid, except in a few cases, the perfect union of the scientific inquirer and the general practitioner in the same person. The practical and the scientific, in our profession, are thus necessarily, to a great extent, separate; and I need not tell you, my medical brethren, that the bringing together what the limited powers of human nature tend to divide, is one of the chief objects of this association.

Another reason why our practice does not fully correspond to our advanced knowledge in the science of medicine, is founded in the effect produced on it by the popular ignorance and prejudices of the times. Many of us have felt that the constant appeals of quacks, of every genus and species, to all the ~~absolute~~ ^{obscure} notions of disease and its treatment, have almost completely succeeded in preventing all true medical knowledge from gaining a foot-hold in the public mind. It is also true that the necessity of adopting our language as well as our practice in some measure to the popular medical notions of the day, has greatly hindered many of us from keeping up with the advance of medical science. To acknowledge this humiliating state of things in our profession, is partly to correct it, and I have touched upon it for that purpose only.

Perhaps in no department of medical science has there been more marked advancement and progress than that which comprises the investigation and treatment of cerebral and cerebro-spinal diseases. These nervous affections, and their name is legion, which have their origin in disordered function, or in lesion of the brain and spinal cord and their investing membranes, are at the present day much better understood and more successfully treated than in former times. This, however, does not result so much from the continued observations of these maladies, and the application of remedial agents, as from the aid afforded in the true interpretation of symptoms under the increasing light of

advancing physiology, and the more accurate knowledge of the anatomical structure and molecular action in health and disease of the great central organs of nerve force. The successful practitioner of to-day cannot satisfy himself with the study of diseases merely by their symptoms, nor with their treatment, by the remedies in use by his preceptor, or recommended in the lectures to which he has listened in the medical school from which he received his degree. Sometimes before the ink is dry on the prescription which he has written, some Dalton, or Todd, or Bowman, may have pronounced and proved his physiological knowledge in error, or some Kokitansky or Brown-Sequard may have successfully upturned the views of pathology on which his prescription rested. The practitioner of medicine at the present time must stand, not upon this narrow circle of ideas, but upon the broad platform of *general principles*, looking upon and practicing his profession as an art, awaiting in faith and looking in hope for the dawn of that day when not only the deep foundations but the whole superstructure of the edifice of medicine will consist of *ultimate facts and principles*, cemented by an accurate knowledge of the laws and forces of the animal economy, both in health and in disease.

In the study of the affections of the brain and nervous centres, the causation, pathology and treatment of insanity have of late received great attention. In this department of medical science and practice, we have not only progress but revolution. An eloquent writer, FALRET, in describing the condition of the insane as it existed, not many years ago, gives the following graphic, and alas for humanity, truthful picture of this most unfortunate class of the human race. He says: "Considered alternately, according to the manner of the times, as privileged beings, as inspired by Heaven, as possessed by demons, as sorcerers and heretics, and even as criminals, they were the objects of the most absurd superstition, and the most cruel punishment. We find them at first shut up in the sanctuary of the temples, and often mingling in their ceremonies; again, subjects to exorcism, to the rack, burned at the stake; later, banished to the most obscure and unwholesome corners of the country, the hospitals, and even the prisons—loaded with chains, crowded together or isolated in cages like wild beasts, and exposed to the curiosity of the public; again, abandoned to themselves, wandering in cities and in the country, victims of the derangement of their ideas and senti-

ments, these unfortunates disturbed the public repose, offended good manners, and were according to the form and manifestation of their mental disease, objects of fear, contempt, ridicule or absurd regard.

In this picture we see the condition and treatment of the insane for many thousand years. Up to the 18th century but little light had been shed upon its pathology or treatment; and indeed the views and ideas pertaining to this subject can hardly be said to have taken *form* so as to give psychology a place in medicine, until within a little more than half a century. If the improvements in medicine had accomplished nothing beyond a knowledge of the pathology and treatment of this form of disease, we should even then be proud of its achievements, but we have here only one department of medicine in which progress has recently been made.

With respect to its literature, there were some books on the subject of insanity, but twenty-five years ago there was no periodical in existence, devoted to mental disorders. *THE AMERICAN JOURNAL OF INSANITY* was commenced twenty-one years since, in the New York State Lunatic Asylum, and was edited by the late Dr. Amariah Brigham, its first superintendent, who died in the asylum in 1849. He was succeeded by the late Dr. T. Romeyn Beck, who like his noble predecessor in the editorial chair, lived and died in the cause of science and humanity. Since the death of Dr. Beck, which occurred in 1855, it has been edited by the medical officers of this institution. The establishment of this journal was one of the first, if not the first, successful effort in this direction. Since its establishment, similar journals have been brought out in France, England, Germany and in other countries.

This important branch of the medical profession has now fully emerged from the darkness which so long rested upon it. Science has rescued insanity from the domain of ignorance and superstition; has placed it among the physical ills of life, a preventable and curable malady, and has at length triumphantly realized the divine mandate, uttered two thousand years ago, that the lunatic be "clothed and in his right mind." She has discovered with approximate accuracy the causes of the disease; has set forth a clear and distinct pathology, and in its cure has invoked the noblest elements of christian charity, and placed its treatment in the hands of many of her choicest sons.

It is with mingled feelings, in which those of pain and sadness predominate, that I touch upon another branch of my subject. None of us can forget that while we are devotees of science and proud of our humane art, we are above all, AMERICAN CITIZENS. As such we mourn the fell blow, by which the national body politic, fresh from the glorious birth whose pangs are yet in the memory of living witnesses, vital with the life breathed into it by heroic souls, and filled with the blood transmitted from generous hearts, is laid bleeding and prostrate by parricidal hands. Yet we must not repress a feeling of modest pride, in view of the labor performed by medical men, in the vast field suddenly opened up by a deplorable war, and of the great additions to sanitary and surgical science which have been made during our present struggle for national existence. It is only by the discovery of imperfections that progress in any department is achieved. Goon, in the moral and in the physical world, is rendered possible only by the existence of evil. Let us ever be grateful, in the crisis of our great national malady, whose diagnosis and treatment present difficulties of such a fearful magnitude, that our duties as physicians lie plainly before us, in harmony and unbroken union.

At the beginning of the war, military surgery was little more than an exotic in this country. Its principles were derived from the views and experience of European states, in which the condition of climate, food and military organization were very unlike our own. For these reasons, methods almost entirely new had to be adopted, and untried means put in practice by our army surgeons. It is perhaps not too much to say that military surgery has been created anew in this country, with a body of doctrines, a fund of resources, and a system of practice equal to the demand of so important an art in times of war. But it is in the department of sanitary science, as applied to the arrangement of camps, the construction of hospitals and in the prevention of all those diseases incident to army life, that the most notable progress has been made.

It would seem almost providential that the claims of this science had attracted the especial attention of the medical profession, and men of kindred studies, several years previous to the breaking out of our civil war. In 1857, an American Congress for sanitary reform, assembled in Philadelphia and organized an association for promoting the cause of public hygiene. Annual

conventions of this body, composed of many of the best men in our country, were held, and a powerful impulse given to sanitary science, which has been of incalculable aid in ameliorating the horrors of war. The necessity of crowding together large masses of men, ignorant both of the dangers to which they were exposed and the means of avoiding them, would often have been fatal to our army but for the noble organization which was the fruit of this movement.

The SANITARY COMMISSION which has been established at our national capital, is an institution of which we may justly boast. It is like our own time honored organization, self-created and self-sustained. In its noble mission to humanity, its cheering and beneficial influence is more widely extended, and is felt by a larger number of sufferers in the hospital, the camp and the field of battle than if it possessed the charter and power of the Federal Government.

I trust the society will pardon me for introducing this topic into my discourse. It seems to me that the members of the Sanitary Commission are entitled to the highest meed of praise which can be bestowed by us and by all others whose office it is to protect human life and to relieve human suffering. Let us render all honor to whom honor is justly due; and the more because they are men; O, how rare in these corrupt and selfish times! who will accept no other reward for their services than the approbation of conscience, and the gratitude of their fellow men.

Although true progress is readily received and even welcomed by the medical profession at large, yet it must be admitted that a false, because an unscientific conservatism prevails to a certain, and it is to be hoped limited extent among us, much to the detriment of the public welfare and our own honor and good name. The presence here to-day of so large a representation of the members of our profession, for the express purpose of aiding and promoting the advance of medical science, is proof that the sentiment referred to is far from being general among medical men; but its existence cannot be wholly denied. In nearly every community there are medical men, often holding a highly respectable position in the profession, who seem to think that in medicine "there is nothing new under the sun," or at least nothing new that is worth knowing. If you tell them of discoveries in physiology or pathology, which ~~shall~~ change their medical theories, the reply is that they are practical men and do not trouble them-

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selves about new theories. If you present to them new curative or preventive measures, and bring the facts to your support, they will cite to you the words of Cullen, "that there are more false facts than false theories in medicine," and declare it to be impossible to get at the true ones. But as Galileo had only to appeal to sensible facts in proof that the earth "does move," so we have only to refer these brethren to the records of history for evidence of the reality of medical progress. The discovery by Harvey of the circulation of the blood, was scarcely accepted as a fact during his lifetime by the conservative members of our profession. A dread of change, and the fear of discrediting medical science by acknowledging its imperfections, was much more felt at that time than at the present. Yet who can measure or comprehend the advance in medical science, rendered not only possible but practicable by this discovery? Modern astronomy has not been more entirely built on the discovery of the earth's motion around the sun than ~~the~~ modern medicine on that of the true circulation of the vital fluid in man. A vague notion that the blood flowed from one part of the body to another, with a sort of tidal movement, had been held by medical men, from the time of Galen down, for more than fifteen hundred years, and had given birth and support to those absurd theories which for so long a time made medical practice little less than a scourge to the world. If we do not now use such unmeaning terms as "crudity," "coction," and "evacuation," to veil our ignorance of morbid action, it is to a progress marked by such discoveries as that which we are considering, that we owe the change. Nor should we be likely to neglect or denounce all new therapeutic means if we read aright the history of Dr. Jenner. He had discovered that cow pox was a preventive of or substitute for the small pox, and sought to introduce the practice of vaccination, and thereby protect the public against a most fearful scourge. I should really be ashamed to repeat here the terms of distrust and even of censure with which this great benefactor of his kind was assailed by the medical conservatives of his day. But let them and their vain denunciations all be forgotten, while we honor and perpetuate the memory of Jenner in the daily application of the boon which he has left behind him for all mankind. The lesson to us is, that we are to distrust or reject nothing merely because it is new, but patiently to prove all things to whose claims any scientific or practical tests can be applied. Although so few grains

of wheat are left from the clouds of chaff raised up by those who are ignorant alike of the history and methods of scientific progress, we must still toil on. If we refuse to do this we shall be left by the onward tide of knowledge, or perhaps buried in its flood.

Admitting that the facts of medical science are in the main well established, but that some of them are *probable* rather than *positive*, and that in certain cases there is room for doubt whether the *result* is altogether due to the remedies employed. Admitting that in the practice of medicine we have sometimes placed too much confidence in our treatment, and in nature too little; still we maintain the value of, and have confidence in, the practical ~~value~~ *utility* of medical science, and thoroughly believe in the controlling power of medical art. It is not true, as has been asserted, that "nature alone heals diseases and injuries." In cases of P^{OR}SON taken into the stomach, nature always does her best, by vomiting and by the depurative organs, to remove the noxious matter. But unless we come to her aid with our emetics, our stomach pump, or our antidotes and neutralizing agents, she will often fail and the patient will die. So of the more subtle poisons which enter the system with the air we breathe, or result from the transformation of tissues. Nature cannot always throw them off unaided. She calls upon us to put such weapons as quinine, and mercury, and iodine into her hands, or give increased strength to her arm by our narcotics, and tonics, and stimulants. In surgical cases the powers of art are manifest beyond the possibility of a doubt. Do we not see nature and art working in harmony and union together in the cure of every dislocated joint, in the restoration and healing of every fracture and the closing of every wound? Nature, the vital forces of the system, and art, the handmaid of nature, effect the cure. Sometimes one takes the initiative, sometimes the other; but both are necessary in almost every case. After the division of an artery, we have all seen nature check the flow of blood by inducing or bringing on syncope; yet she must often have failed in saving life, but for the surgeon's ready ligature or other means, applied under the guidance of anatomical and physiological knowledge.

It cannot be necessary to enlarge farther upon this point. Apart from all speculative theories and opinions, the experience of every intelligent practitioner of medicine must tend to estab-

lish this truth—*medical art does render positive and efficient aid in the cure of diseases.*

But skepticism in medicine is by no means the worst enemy to its progress and usefulness. To any advance in knowledge, doubt is even necessary. Society in all its interests has less to fear from unbelief than from superstition and bigotry. In Homœopathy we have a scheme of imposture which saps the very foundations of all positive science. Treating as valueless all its discoveries and conquests, refusing to be tested by its rules and methods, it adopts the language and the spirit, as well as the lowest motives of quackery. To give up modern medicine, or exchange it for Homœopathy, would be as great a step backwards in science, as to give up astronomy for astrology, or chemistry for alchemy. Its law of cure, "*similia similibus, curantur,*" contradicts all the analogies of nature, by bringing into direct opposition the laws of health and those of disease. Now these two conditions must have laws and processes common to each other, that is, physiology and pathology are parts of one great science of life, or all observation and generalization of natural phenomena have hitherto been idle and in vain. Of the means of cure employed by Homœopaths, little need be said. No one who has once conceived the rules and limitations of scientific inquiry, can believe them to be of any effect. A double concave mirror could not reflect one single ray of light from the infinite littleness of this system of error. Science has to do only with positive tangible facts. It can have no experience of the *infinitely great* or the *infinitely small*. The hundred thousandth millionth part of a grain of charcoal or of sulphur has no practical or positive value. But we will not condescend to fight against shadows.

Extremes tend to meet; and as medical skepticism, and this monstrous wonder of credulity and superstition, known as Homœopathy, reach the same end, that is nihilism in practice; the former, though in perfect contrast to the latter in its principles and real character, has sometimes shown a very large degree of sympathy for it. Homœopathy, say the do-nothing doctors among us, "has taught the medical profession what nature can do unaided by drugs, for the cure of disease." Now we claim that it was not medical men who needed such teaching, but the non-medical public. The healing power of nature was as distinctly recognized by Hippocrates as it was by Sydenham in his "*vis medicatrix naturæ,*" or as it is now by the whole medical profes-

sion. It was the public who needed to have it impressed upon their minds, that in hygienic and prophylactic measures lay the chief strength and value of medical science. And what has been the effect upon the public of this system from which we are bid to take lessons in medical practice? It has, so far as its influence has reached, swept away the very foundations of rational medicine, in the public mind. Who cares to know anything about the causes of or changes produced by disease, and how to avoid them, or how to foster and aid the healing powers of nature, when the beginning and end of medicine is that every symptom has its specific, "*similia similibus, curantur*?" It is with great pains and risk that heretofore we have taught primary medical truths to patients, determined to find in drugs the way to escape the penalty of their own vices and follies. But here is a sect, in the light of the nineteenth century, eager to lead the public to deeper depths of ignorance and superstition than was reached by the medical priests, centuries before the christian era, and we are directed to take lessons of them! I regret to be compelled to say that some who are called priests to-day, are steeped in the same ignorance and folly as those of earlier times.

The advertising medical quacks, in making some appeal to medical knowledge and common sense, are much more worthy of respectful consideration. They at least *pretend* to recognize scientific facts, while the Homœopaths blindly reject them. Instead of looking upon Homœopathy as a harmless folly, or as a useful satire on medicine, we should endeavor to awaken in the public mind a sense of its debasing and its destructive effects, not alone on medical science and art, but on those who need their true and enlightened application.

You will excuse me, I trust, that I have deemed it not out of place here, to devote a few moments to a notice of Homœopathy. True it is only a fashion of quackery, which under the light of science must soon pass away, and give place to some other, which will probably come to vex and confuse the painful but onward way of medical progress. Yet duty demands that we should consider and expose these changing errors and impostures as they arise, and take care meanwhile that they find no shelter or protection under the garments of truth and medical science.

It has seemed impossible for some to believe in the reality of progress in medicine, while they are forced to admit the impossibility of bringing it to the degree of *scientific exactness*. But we

most clearly conceive of a progress towards perfection, which yet shall never arrive at that point. We are also bound, in medical as well as in moral science, to accept for the time, partial facts and probable proof, as the basis of our practice. Such facts, even, as that mercury neutralizes the syphilitic virus, and quinine the malarial process of intermittents, are by no means constant, and it is easy to find a logical flaw in the proof that they exist as facts at all.

The element of faith in the exhibition of remedies, which is sneered at by ultra scientific men on the one hand, and wholly relied on by medical drones and impostors on the other, has a real importance in the mind of the practitioner as well as in that of his patient. It is by the combination of faith and knowledge that the greater part of nature's gifts are secured; and this must continue while the world remains, so far as we can see. Meteorology and vegetable physiology are as imperfectly understood as the phenomena of human life in health and disease. But because the farmer cannot regulate the weather, or comprehend fully the processes of germination and fructification, he does not therefore refuse to prepare or plant his fields. He rather seizes upon such imperfect knowledge as is accessible to him, and though it may not satisfy his speculative curiosity, he accepts it as a sufficient guide to his labors, until he can add to and improve it. Thus year after year he prepares his ground, sows his seed and cultivates his crop, in the confident expectation that he shall finally reap the fruit of his labor. He has full faith also that the harvest which he has gathered is the legitimate result of the means employed to obtain it; and though he may always fail to comprehend the whole philosophy of production, he will nevertheless continue to plough and plant and reap. So too with the practitioner of medicine. He has given certain medicines when certain combinations of symptoms were present in his patient, times without number, and has witnessed very often the same happy result of his treatment. He cannot always fully understand how his remedies affect the organs and functions of the body, or how the morbid tendencies and conditions were corrected and overcome; but he will not for these reasons cease to administer them. He will speak of the *cures* which he has performed, as well as the farmer of the crops he has raised, and with equal truth and propriety. If the farmer refuses to learn and apply what is known about soils, and tools, and modes of culture; if

he plants wooden pumpkin seeds in a gravel bed, for instance, in despair of making an exact science of agriculture, or expecting that miracles will be employed for him, his crop will be a light one indeed. So if the medical skeptic confines himself to the use of bread pills, or sugar globules, because his medical philosophy does not fully comprehend the *modus operandi* of all his remedies, he will be untrue alike to science and to humanity.

The modern theory of light, which has been adopted and taught by nearly all of the wise men in the whole world, rests rather on "brilliant conjectures" than on well established scientific facts; and yet no one thinks of refusing to use and employ this universal and all-pervading agent or power of nature, simply because all he in reality knows of it is contained in the brief history of its advent on earth. God said, "let there be light, and there was light."

It is given to man, by patient and intelligent effort and labor, to direct and change the processes of nature in the organic as well as in the inorganic world, and he will be held to a severe and fearful accountability if ~~he~~ neglects this high privilege. *he denies*

There remains another kind of medical progress, personal to every member of our profession, and worthy of a high place in the estimation of us all. In no science worthy of the name does all its dignity and value consist in merely practical utility. The pursuit alone of medical knowledge, leading, as it does, into the most delightful walks of nature and of duty, is a source of the highest and most elevating enjoyment, and is, indeed, its own best reward. As it has been said, that to philosophize is better than philosophy itself, so the study of medicine is infinitely better than dull repinings after some complete system which shall ignore all necessity of medical research.

I need only remind you of the moral elevation which the pursuit of such lofty studies, and the practice of our humane art should produce. Let me quote here the words of Dr. Watson, one of the most learned and honorable medical writers of this or any age: "Amid all its responsibilities, the profession of medicine is a noble profession, and worthy of the devotion of a life time. If we fit ourselves for its high functions, and pursue it in earnestness and in truth, it will conduct us to usefulness and honor, and it will prove a salutary school of mental and moral discipline. Toils and doubts belong to it and disappointments, but it has also privileges and immunities peculiar to itself.

Affording ample scope and exercise for the intellect, it is conversant with objects that tend to elevate the thoughts, to chastise the feelings, and to teach the heart. It brings beneath our minute and daily notice that most remarkable portion of matter which is destined for a season to be the tabernacle of the human spirit, and which, apart from that singularly interesting thought, excites increasing wonder and admiration the more closely we investigate its marvelous construction. The sad varieties of human pain and wretchedness with which our daily avocation is familiar, should rebuke our pride while they quicken our charity. To us are intrusted, in more than ordinary measure, opportunities of doing good to our afflicted fellow creatures, of showing love towards our neighbor. Let us beware how we idly neglect or selfishly abuse a stewardship so precious, yet so weighty. The profession of medicine, having for its end the common good of mankind, knows nothing of national enmities, of political strife, of sectarian dissensions. Disease and pain, the sole condition of its ministry, it is disquieted by no misgivings concerning the justice of its client's case, but dispenses its peculiar benefits, without stint or scruple, to men of every country, and party, and rank, and religion; and like the quality of mercy, of which it is the favorite handmaid, it blesses him that gives and him that takes—recalling continually to our hearts and understanding the most impressive lessons, the most solemn warnings. Familiar with death in its manifold shapes, witnessing from day to day its sudden strokes, its slow but open seige, its secret and insidious approaches, we are not permitted to be unmindful that our own stay is brief and uncertain, our time, even when longest, very short if measured by our own moral wants and intellectual cravings."

This brief and yet comprehensive sketch, by a master hand, of the duties, responsibilities and character of the true physician, must command the approval of all who worthily bear the burdens and enjoy the privileges of our profession. No one can fail to perceive the justice and accuracy of such words when the life of him who uttered them is their full and perfect embodiment. And can we not, gentlemen of the society, as this occasion brings back the memory of those who were once gathered with us here, but who are now in the presence of Him whose healing we all need: Can we not, I say, recall the names of many whose lives were made up of deeds of devotion, of charity and self-denial?

Let us all emulate their bright examples, and render ourselves worthy of their glorious reward. So shall we best commend the present claims of medical science, and by thus strengthening its foundations in the esteem and confidence of the public, we may all contribute something to its advancement in the future.

